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A GARCH Model of Inflation and Inflation Uncertainty with Simultaneous Feedback

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Abstract

We examine the relationship between inflation and inflation uncertainty using a GARCH model that allows for simultaneous feedback between the conditional mean and variance of inflation. We also derive a number of theoretical econometric results and illustrate the relevance of these results with an empirical example of the US monthly inflation process. Our results show that there is strong evidence in favour of a positive bi-directional relationship between inflation and inflation uncertainty in agreement with the predictions of economic theory.

Keywords: inflation, inflation uncertainty, GARCH-M

JEL Classification: C2